1. The first planning/working group meeting for the APG Science and Technology (S&T) board took place on 9 Apr, 1997. Attendance at this meeting was limited to the Army Research Lab (ARL), Chemical Biological Defense Command (CBDCOM), U.S. Army Garrison, and TECOM Headquarters. Rationale for this was based upon guidance received from the TECOM commander during a S&T Board briefing that a limited number of attendees would allow a basic framework to be constructed and presented to all board members during a future meeting. The intent was not meant to be exclusionary.

2. Attendees:

Mr. Bob Silcox, U.S. Army Garrison, APG

Dr. Ingo May, U.S. Army. Research Laboratory

Dr. Jim Savage, U.S. Army Chemical/Biological Defense Command

Dr. Dave Brown, U.S. Army Test and Evaluation Command

Mr. Stephen Clark, U.S. Army Test and Evaluation Command

- 3. The board meeting commenced promptly at 0900, 9 Apr. If this initial meeting may be used as a metric for the benefits that may be derived from this board, we are in for a wildly productive ride. The synergism that will be generated by the board, coupled with the multifaceted ideas, educational opportunities, and opportunities for high tech growth potential partnerships, both within government and industry for the greater Harford County region is phenomenal. The greater Harford County region limits have not been defined yet, however this region may include parts of both Baltimore and Cecil counties, and Delaware. Secondly, many diverse ideas were interspersed throughout the discussion, to include revisits of previous discussion. I have attempted to combine these ideas within the appropriate discussion areas where possible. Major overarching ideas are captured in paragraph 9.
- 4. Dr. Brown opened the meeting with a discussion of the goals of the board as viewed by the TECOM Commander, with copies presented to each board member. The political benefits of this board are evident in the fact that APG will seek to merge its large technical base with industry and the Harford County region to spur growth in high tech industries. This growth will garner further support for APG from county and state political leaders. The board will serve as a platform for providing guidance to its members, and as an point of entry for the region,

to include HCC, to APG's technical base. Dr. Brown suggested that for this meeting each board member present the capabilities of their activity that will available for this effort, and the needs of the activity.

- 5. Dr. Savage followed with a discussion on the capabilities of CBDCOM. These include expertise in chemical/biological detection technology (with spin-off potential for environmental monitoring), biotechnology, Computer Aided design, Simulation and Modeling, DIS, a well funded antiterrorism initiative, and the strength of its technical workforce (approx. 920 people total; 600+ engineers and scientists). CBDCOM has a need for replacement of FREON as an agent for Decon facilities.
- 6. Dr. Brown discussed the capabilities of TECOM to include it's impressive real estate holdings, the benefit of having command emphasis on the S&T Board initiative, the command environmental re-mediation program, the detection and cleanup of unexploded ordnance, and the diversity of its workforce. TECOM's needs include a requirement to re-engineer the workforce (primarily in the area of Virtual Proving Ground technology), High performance computing, Modeling and Simulation education (expansion into T&E/R&D worlds), and physics of failure in conjunction with materials test lab/ARL,
- 7. Dr. May briefed the capabilities of ARL. These include materials research in metals, composites, and ceramics. There are existing consortia with nearby universities. ARL has extensive computational resources and capabilities in conjunction with the OSD Major Shared Regional Supercomputing Center at APG. There are sophisticated computer visualization capabilities available. BRL-CAD has proven to be a commercial success for 3D modeling and ray tracing. The tie in to the Virtual Proving Ground can be expanded. Special high "g" instrumentation for evaluating in situ ballistic and other environments are being developed. Extensive capabilities in chemical analysis, combustion diagnostics, materials characterization, laser diagnostics can be found in ARL at APG. There is significant human factors research/engineering looking at comprehension of complex information displayed on video systems, auditory research on hearing loss, effects of stressful environments on human effectiveness. Significant COE and AMC sponsored research is being conducted on environmental clean-up problems.
- 8. Mr. Silcox presented Garrison capabilities. These include the ongoing work to attract high tech industry to the region, turning the club into a conference/training center, looking at way to promote possible moves of other organizations to APG.
- 9. The items below were key thoughts/ideas/ presented throughout the meeting:

- The focus of this effort will be to change the demographics of the area.
- The terms "point of entry" and "clearinghouse" were used, (Note: This board will serve many roles).
- The board must achieve a critical mass for the educational aspects of this effort.
- The challenge in this effort will reside in the effective management of resources, people, and opportunities.
- Partnerships with industry were discussed. This led to a discussion of the board acting as a magnet for high tech firms to either relocate to the region (HEAT Center), or to provide an impetus to create a startup firm. Examples of pre-existing firms in the area include SAIC, Battelle, and TRI-S, These initiatives fall under the theme of expanding the peripheral workforce (external to APG) and "growing the outer core".
- Board membership should include industry.
- A general resource directory of capabilities will be required to be used as a marketing tool for APG's unique capabilities.
- The region's school systems, to include elementary through high school, will require investigation as to an apprentice/Technical program.
- The board will serve to leverage resources and act as stewards to the nation.
- Weapons of mass destruction role within CBDCOM charter.
- ullet Harford County to be invited to first full board meeting to brief HEAT Phase II report. It is suggested that the first full meeting should be held at the HEAT center.
- Environmental was a recurring theme though-out.
- Graphics/support structure with APG needs to move to "outer core" (grow into the community).
- A consortium exists for physics of failure work (Dr. May).
- Look at other facilities that will fall under BRAC to bring to region.
- Innovative ways to re-educate workforce.
- The use of automation (central site?) will need to be considered to allow board to maintain a handle on vast amount of information/threads to be generated by the board.
- 10. It was determined that it would be premature to call a full meeting of the board at this time. The abbreviated board will meet again to construct a charter (action by Clark prior to meeting), and propose first projects. These include sample ideas for marketing brochure/booklet, a S&T museum for APG, pictures on wall of HEAT Center of high tech companies in the region, and partnerships with industry.

Comment [SC1]:

11. The board concluded it's business at 1100 with the determination that minutes would be e-mailed to the participants, corrections made and returned to Mr. Clark. The next board meeting would be scheduled at that time.

STEPHEN C. CLARK S&T Board Coordinator